

RECEIVED

Page 1 of 8

OCT 04 2002

1632

TECH CENTER 1600/2900



1600

RAW SEQUENCE LISTING

DATE: 09/27/2002

PATENT APPLICATION: US/09/590,211A

TIME: 13:02:22

Input Set : A:\3028.1000-000 SECOND SUB SEQUENCE LISTING.txt

Output Set: N:\CRF4\09272002\I590211A.raw

4 <110> APPLICANT: Rouleau, Guy A.
5 Brais, Bernard
7 <120> TITLE OF INVENTION: SHORT GCG EXPANSIONS IN THE PAB II GENE
8 FOR OCULOPHARYNGEAL MUSCULAR DYSTROPHY AND DIAGNOSTIC Thereof
11 <130> FILE REFERENCE: 3028.1000-000
13 <140> CURRENT APPLICATION NUMBER: 09/590,211A
14 <141> CURRENT FILING DATE: 2000-06-08
16 <150> PRIOR APPLICATION NUMBER: PCT/CA98/01133
17 <151> PRIOR FILING DATE: 1998-12-07
19 <150> PRIOR APPLICATION NUMBER: 2,218,199
20 <151> PRIOR FILING DATE: 1997-12-09
22 <160> NUMBER OF SEQ ID NOS: 21
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 30
28 <212> TYPE: DNA
29 <213> ORGANISM: Homo sapiens
31 <400> SEQUENCE: 1
32 atggcgggcg cggcgggcg gcagcagca 30
34 <210> SEQ ID NO: 2
35 <211> LENGTH: 24
36 <212> TYPE: DNA
37 <213> ORGANISM: Homo sapiens
39 <400> SEQUENCE: 2
40 atggcgggcg cggcgggcg gcga 24
42 <210> SEQ ID NO: 3
43 <211> LENGTH: 27
44 <212> TYPE: DNA
45 <213> ORGANISM: Homo sapiens
47 <400> SEQUENCE: 3
48 atggcgggcg cggcgggcg ggcggca 27
50 <210> SEQ ID NO: 4
51 <211> LENGTH: 30
52 <212> TYPE: DNA
53 <213> ORGANISM: Homo sapiens
55 <400> SEQUENCE: 4
56 atggcgggcg cggcgggcg ggcggcgca 30
58 <210> SEQ ID NO: 5
59 <211> LENGTH: 33
60 <212> TYPE: DNA
61 <213> ORGANISM: Homo sapiens
63 <400> SEQUENCE: 5
64 atggcgggcg cggcgggcg ggcggcgcg gca 33

ENTERED

RAW SEQUENCE LISTING

DATE: 09/27/2002

PATENT APPLICATION: US/09/590,211A

TIME: 13:02:22

Input Set : A:\3028.1000-000 SECOND SUB SEQUENCE LISTING.txt

Output Set: N:\CRF4\09272002\I590211A.raw

```

66 <210> SEQ ID NO: 6
67 <211> LENGTH: 36
68 <212> TYPE: DNA
69 <213> ORGANISM: Homo sapiens
71 <400> SEQUENCE: 6
72 atggcgggcgg cggcggcggc ggcggcggcg gcggca           36
74 <210> SEQ ID NO: 7
75 <211> LENGTH: 39
76 <212> TYPE: DNA
77 <213> ORGANISM: Homo sapiens
79 <400> SEQUENCE: 7
80 atggcgggcgg cggcggcggc ggcggcggcg gcggcgga           39
82 <210> SEQ ID NO: 8
83 <211> LENGTH: 42
84 <212> TYPE: DNA
85 <213> ORGANISM: Homo sapiens
87 <400> SEQUENCE: 8
88 atggcgggcgg cggcggcggc ggcggcggcg gcggcggcg ca       42
90 <210> SEQ ID NO: 9
91 <211> LENGTH: 45
92 <212> TYPE: DNA
93 <213> ORGANISM: Homo sapiens
95 <400> SEQUENCE: 9
96 atggcgggcgg cggcggcggc ggcggcggcg gcggcggcg cgga     45
98 <210> SEQ ID NO: 10
99 <211> LENGTH: 19
100 <212> TYPE: PRT
101 <213> ORGANISM: Homo sapiens
103 <400> SEQUENCE: 10
104 Met Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly Ala Ala Gly Gly
105 1          5          10          15
106 Arg Gly Ser
110 <210> SEQ ID NO: 11
111 <211> LENGTH: 16
112 <212> TYPE: PRT
113 <213> ORGANISM: Homo sapiens
115 <400> SEQUENCE: 11
116 Met Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly Ala Ala Gly
117 1          5          10          15
120 <210> SEQ ID NO: 12
121 <211> LENGTH: 17
122 <212> TYPE: PRT
123 <213> ORGANISM: Homo sapiens
125 <400> SEQUENCE: 12
126 Met Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly Ala Ala
127 1          5          10          15
128 Gly
132 <210> SEQ ID NO: 13
133 <211> LENGTH: 18

```

RAW SEQUENCE LISTING

DATE: 09/27/2002

PATENT APPLICATION: US/09/590,211A

TIME: 13:02:22

Input Set : A:\3028.1000-000 SECOND SUB SEQUENCE LISTING.txt

Output Set: N:\CRF4\09272002\I590211A.raw

```

134 <212> TYPE: PRT
135 <213> ORGANISM: Homo sapiens
137 <400> SEQUENCE: 13
138 Met Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly Ala
139 1 5 10 15
140 Ala Gly
144 <210> SEQ ID NO: 14
145 <211> LENGTH: 19
146 <212> TYPE: PRT
147 <213> ORGANISM: Homo sapiens
149 <400> SEQUENCE: 14
150 Met Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly
151 1 5 10 15
152 Ala Ala Gly
156 <210> SEQ ID NO: 15
157 <211> LENGTH: 20
158 <212> TYPE: PRT
159 <213> ORGANISM: Homo sapiens
161 <400> SEQUENCE: 15
162 Met Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
163 1 5 10 15
164 Gly Ala Ala Gly
165 20
168 <210> SEQ ID NO: 16
169 <211> LENGTH: 21
170 <212> TYPE: PRT
171 <213> ORGANISM: Homo sapiens
173 <400> SEQUENCE: 16
174 Met Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
175 1 5 10 15
176 Ala Gly Ala Ala Gly
177 20
180 <210> SEQ ID NO: 17
181 <211> LENGTH: 22
182 <212> TYPE: PRT
183 <213> ORGANISM: Homo sapiens
185 <400> SEQUENCE: 17
186 Met Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
187 1 5 10 15
188 Ala Ala Gly Ala Ala Gly
189 20
192 <210> SEQ ID NO: 18
193 <211> LENGTH: 6002
194 <212> TYPE: DNA
195 <213> ORGANISM: Homo sapiens
197 <220> FEATURE:
198 <221> NAME/KEY: misc_feature
199 <222> LOCATION: (4616)...(4616)
200 <223> OTHER INFORMATION: n= A,T,C, or G

```

RAW SEQUENCE LISTING

DATE: 09/27/2002

PATENT APPLICATION: US/09/590,211A

TIME: 13:02:22

Input Set : A:\3028.1000-000 SECOND SUB SEQUENCE LISTING.txt

Output Set: N:\CRF4\09272002\I590211A.raw

202 <400> SEQUENCE: 18

```

203 aatgaagggtg gacacccaaa tagccccaat acaaatgcct gttcaatcaa ccaaacatct 60
204 aagcagcaca tctatgtggt agcatattgc caggccgtga gactgcgaat ataaatagga 120
205 accgcccctc atctgcaggc gctcacaacc tagttagcaa acagtaaaac aattaagcgc 180
206 gccgtggaca taggcccact tgtcctggga aatgagggga agctgggggt tgcagtgggt 240
207 tgattgaagg gggactacat gttagaggca cagactgggt gcaggtacac ccaaaggaa 300
208 gagaagagtg gaaggaaaca acatccacaa agtaaccaca tgctggcgta tcgaaggccg 360
209 tgatttacgg ttttgagact ttacctcgcc agcaaagggg ggccagtctg ttagcgggtg 420
210 agattggagg ggtgacattg gaagctgtcc agggaaaaga aaatggaact ggggagcaga 480
211 aggcctacgc aagagggcgg gacagacagg acttgtagt agtagctctg gactgaggaa 540
212 tcctccctgc tttctggtgc gggagagcta gtggatgatg gtgccaataa cctggatggg 600
213 gaaagtaagc tcctcctcgg aatgcttcat tcacaacctc ctttttcagc aacatcccat 660
214 ctactggtgc ttctggtcgg agatacaagt ttctgaaac tgctgctctg ttttgggcct 720
215 caccgcggca acagctcact agctggcaag cagtagtata aagatggcgg ccccttagga 780
216 ctggctagtc atgtgacctc gggtttccca agtttgaagc ccggcagtc tttcgggggc 840
217 aaggttcacc tgtaacgaaa cgagtgtcac cccttcgact ctgcgaagcc aatcggcatc 900
218 tgagactggg ccaactgcgt gaggcgatcg gaagattggt cctttccagt cgcctagcta 960
219 gggccaatca cggagcgtcc catacttcgc gggcccgccc gtaggcgggg gagaagcagg 1020
220 aatatcgta cagcgtggcg gtattattac ctaaggactc gataggaggt gggacgcgtg 1080
221 ttgattgaca ggcagatttc cctaccggga ttgagaatt tggcgcatg cccgccttag 1140
222 aggtgcgctt atttgattgc caagtaatat tcccaatgg agtactagct catggtgacg 1200
223 ggcagggcagc ttgagcta at gagtctccg tggcggcgcg agctctccac atgcccggcg 1260
224 gcggggccca gtctgagcgg cgatggcgcg ggcggcgcg gcggcagcag cagcgggggc 1320
225 tgcgggcggg cggggctccg ggcggggcg gcggcgccat cttgtgcccg gggcgggtgg 1380
226 ggaggccggg gagggggccc cggggggcg aggggactac gggaacggcc tggagtctga 1440
227 ggaactggag cctgaggagc tgctgctgga gcccagccg gagcccagc ccgaagagga 1500
228 gccgcccggg ccccgcgccc ccccgggagc tccgggccc gggcctggtt cgggagcccc 1560
229 cggcagccaa gaggaggagg aggagccggg actggtcgag ggtgaccgg gggacggcg 1620
230 cattgaggac ccggtgagga aggagggcga gcgagcaggc cggcggtctg cgcgtcactg 1680
231 gagggccaga gctcgggcga gcggtggcag gcgggggggt gggttgggcg gggaataacg 1740
232 tggctggggc gggctcgggc ggggatgggt cagcgatcac tacaaggggc ccgactggct 1800
233 tgattcgggc gtcacgggtg cctagtgttg ttctagagag ggtagctttt cttttatcac 1860
234 gaccctcgca tggggcgagg gaaatggcgg agcatggctg aggcgcgctc tggccgagag 1920
235 cagggcacag cccctgcgtt ggttccctct aagctgtcct ccataccctc cccacttata 1980
236 ttaggagctg gaagctatca aagctcgagt caggagatg gaggaagaag ctgagaagct 2040
237 aaaggagcta cagaacgagg tagagaagca gatgaatat agtcacctc caggcaatgc 2100
238 tgagtaactg gcggttgca cgcgagccc ggttctcggg ttggaagggt tgtggggagg 2160
239 atggggaatg tggggttaga tactcggcac cctggagctg cttgtctgag ctattatgac 2220
240 tgtgcgcggc tcatagtccg ttgtgttct ctctgacct tgtgaggcag aactgatatt 2280
241 ttggtggttg tagccttggt cctccctttg tcctgttata attgtgttg tctttattct 2340
242 tagtctacgt ctatctttct ttggtagagg ttgcgtgctc gcatttgacc ttcaaactca 2400
243 atagtttttc ctccaattgg agacgcttta ggattctaag agaaagcaag ctggaagggg 2460
244 tttccctttt aaattctaga aatgtggagt ctacgcccac ttaattttgc tcactcttaa 2520
245 aagcatttca accaaagcca ttcattaggg atttgatttg gagggcagga gggattccta 2580
246 tactgtttta agtgtgtatt aattctttca atttatcgaa ttatttagtg agtaacctgc 2640
247 tatgcactag gcactattct cggcttggtg gtacagcagg gaacagcaca gaccaaaatc 2700
248 tttgccttca ctgagcttat gggatagtgc tgggtggtga agtgcaacat attggtcaag 2760
249 tagaaaacaa gtgtgtggtt tttgtaaaaa attatttttt cctgatagct ggcccgggtg 2820
250 tcatgtccat tgaggagaag atggaggctg atgcccgttc catctatgtt ggcaatgtga 2880

```

RAW SEQUENCE LISTING

DATE: 09/27/2002

PATENT APPLICATION: US/09/590,211A

TIME: 13:02:22

Input Set : A:\3028.1000-000 SECOND SUB SEQUENCE LISTING.txt

Output Set: N:\CRF4\09272002\I590211A.raw

251 cgtactgggg ctctgactgg ggttgggggc aagttcttct tttggggaat tatttaatat 2940
 252 tcctgaaaga acatctccgg gatagatgtg gttttgggtg tggagggagt gtgggaagga 3000
 253 ggtaaagggt aatggaatga tcagtaatca gcaaaggctc tgggtttgga aggaaaagag 3060
 254 attaatccct caaattacca gatttcatgt gctttggtgt atgatggccc agaccaaagg 3120
 255 ctctgggaggg ttcttttgag acaggaattt gcctgggtgc tgtgaaattt ttctcctctc 3180
 256 atcaggtgga ctatgggtgca acagcagaag agctggaagc tcactttcat ggctgtggtt 3240
 257 cagtcaaccg tgttaccata ctgtgtgaca aatttagtgg ccattccaaa ggtaaagtaa 3300
 258 aggggagtaa gttgagataa tttaaattac agtgtacaaa tagataaatt atgttttata 3360
 259 ttgagcagta agttatttgg tgttaacaca ggtgatctgt gtcatttaag atcatggcat 3420
 260 taatgttgat atatcaggag ttgcacctaa atgtcttcag aggccagata acaaaaatga 3480
 261 aggctagatg tgggtgggat tacgaactag aaggggaggg gcagcttcta cttggcctat 3540
 262 tatggcatat ggaaattcag gccctgtgtg tcttattttt acaaatttca aagagtagct 3600
 263 ggaaatttta aaatttaaat gatttogaat gattgaaatt ttccatttag aagaattttg 3660
 264 acaaataaaa aatataactg cattgtagcc caaacgaag catgcctgca ggttgaattt 3720
 265 gacctgtgag gtatttgtaa cctcagagag atacaatgac aattcttttc aggtttgcgt 3780
 266 atatagagtt ctacagacaaa gagtcagtga ggacttcctt ggccttagat gagtccctat 3840
 267 ttagaggaag gcaaatcaag gtaagcctat gtccattgct gttctagtgt tgtataaact 3900
 268 ctccaggttg cctttaaggc tctcatttgt tcatctctga ctccaggtgat cccaaaacga 3960
 269 accaacagac caggcatcag cacaacagac cgggggtttt caccagcccg ctaccgcgcc 4020
 270 cggaccacca actacaacag ctcccgtctc cgattctaca gtgggttttaa' cagcaggccc 4080
 271 cggggtcgcg tctacaggtc aggatagatg ggctgtcctt ctttcccccg cctcccgtga 4140
 272 gcccgctatg ctctcctctc tctggtctga ggaacctccc tccccccacc cctcccctgt 4200
 273 gtcttcaggc actttgtctc ctgcctgtgc aggttgagga aggtagtgtc aggccaggcc 4260
 274 agaaggcagc ctcatcatct tttctgcagt agaaattggt gataagggtc gcatccctcc 4320
 275 cttggttcaa agaggcttcc acccccagcc ttttttttct tgggagttgg tggcatttga 4380
 276 aggtgtttgc ggacaaaact gggaggaaca gggcctccag gaagttgaaa gcaactgttg 4440
 277 gacatttgtt acttttttct gagttaggga gggattgaag actgaacctc ctttgaaga 4500
 278 ataccagagg ctagctagtt gatcctccca acagccttgt gggaggattt tgagataact 4560
 279 attctttatt tgagccagtc ttgcaagggt aacttctcac tgggcctagt gtggttcccc 4620
 280 ggtttttgcc ttgcttcaat tctgtctcta catttaaata gacgggttag gcatataaac 4680
 281 cttggctttt cataagctct acctgcctat ccccaggagt tagggaggat ctatttgtga 4740
 282 aggccctagg gttaaaaaac tgtggaggac tgaaaaactg gataaaaagg ggttcctttt 4800
 283 ccttgccctt gtctctcaat cagatgcgct tctttttctc cactgttttg caaagtttct 4860
 284 tgttaagccc cctccccctt gccccagttc tcccagggtc gttactattt ctgggatcat 4920
 285 ggggtcggtt ttaggacaat tgaacaactt ttttcccccc ttcccttcac agtaactggg 4980
 286 gcaggggcct acggggaggg gcttgtactg aactatctag tgatcacgtt aacacctaac 5040
 287 tctccttctt tcttcagggt gccgggctag agcgacatca tggatttccc cttactaaaa 5100
 288 aaagtgtgta ttaggaggag agagaggaaa aaaagaggaa agaaggaaaa aaaaaagaat 5160
 289 taaaaaaaaa aaaaagaaaa acagaagatg accttgatgg aaaaaaata ttttttaaaa 5220
 290 aaaagatata ctgtggaagg ggggagaatc ccataactaa ctgctgagga gggacctgct 5280
 291 ttggggagta ggggaaggcc cagggagtggt ggcagggggc tgcttattca ctctggggat 5340
 292 tcgccatgga cagctctcaa ctgcgcaagc tgcttgccca tgtttccctg ccccttcac 5400
 293 ccccttgggc ctgctcaagg gtaggtgggc gtgggtggtg ggagggtttt ttttaccag 5460
 294 ggctctggaa ggacacaaaa ctgttctgct tgttaccttc cctcccgtct tctcctcgcc 5520
 295 tttcacagtc cctcctgcc tgctcctgtc cagccaggtc taccaccac cccaccctc 5580
 296 tttctccggc tccctgcccc tccagattgc ctgggtgatc attttgtttc cttttgtgtt 5640
 297 tctttttctg ttttgagtgt ctttctttgc aggtttctgt agccggaaga tctccgttcc 5700
 298 gctcccagcg gctccagtgt aaattccctt tccccctggg gaaatgcaat acctgtttt 5760
 299 ggggggttta ggggtgtttt tgtttttcag ttgttttgtt tttttgtttt ttttttttcc 5820

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/590,211A

DATE: 09/27/2002
TIME: 13:02:23

Input Set : A:\3028.1000-000 SECOND SUB SEQUENCE LISTING.txt
Output Set: N:\CRF4\09272002\I590211A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:18; N Pos. 4616